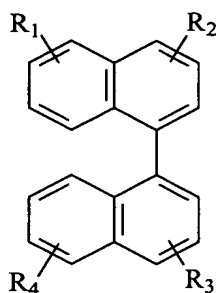


What is claimed is:

1. An electroluminescent device comprising a first electrode, an organic electroluminescent element, and a second electrode wherein said electroluminescent element includes a fluorescent 1,1'-binaphthyl derivative represented by Formula (I):



Formula (I)

wherein R_1 , R_2 , R_3 and R_4 are individual substituents or a group of substituents, each of which is selected from the group consisting of hydrogen; alkyl of from 1 to about 25 carbon atoms; an alicyclic alkyl of from 3 to 15 carbon atoms; an aryl or substituted aryl with about 6 to about 30 carbon atoms; carbon atoms from 4 to 24 necessary to complete a fused aromatic ring of naphthalene, anthracene, perylene and the like; an alicyclic alkyl group with from about 3 to about 15 carbon atoms; a silicon atom which can be substituted with a trimethyl, diphenylmethyl, triphenyl group and the like; heteroaryl or substituted heteroaryl of from 5 to 24 carbon atoms, carbon atoms necessary to complete a fused heteroaromatic ring of furyl, thienyl, pyridyl, quinolinyl and other heterocyclic systems; an alkoxy, amino, alkyl amino or aryl amino of from 1 to about 25 carbon atoms; a halogen, a cyano group, and the like; and combinations thereof.

2. An electroluminescent device in accordance with claim 1 wherein said electroluminescent element includes an emitting layer comprised of a host 1,1'-binaphthyl derivative comprised of Formula (I) and a guest fluorescent or phosphorescent dye.

3. An electroluminescent device in accordance with claim 2 wherein said fluorescent or phosphorescent dye possesses a bandgap no greater than that of said host material.

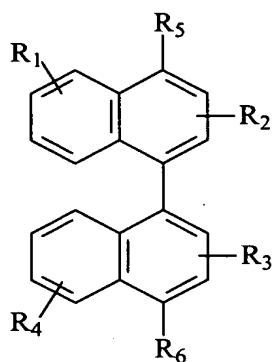
4. An electroluminescent device in accordance with claim 2 wherein said fluorescent or phosphorescent dye is present in a concentration of from about 0.01 to about 10 mole percent, based on the moles of said 1,1'-binaphthyl derivative host material.

5. An electroluminescent device in accordance with claim 1 wherein said element is a layer, said first electrode is an anode, and said second electrode is a cathode.

6. An electroluminescent device in accordance with claim 1 wherein said element is comprised of a layered electroluminescent arrangement comprised of a hole transport layer, and a light emitting layer wherein 1,1'-binaphthyl derivatives are added thereto, and an electron transport layer; and which element is positioned between said first and second electrodes.

7. An electroluminescent device in accordance with claim 1 wherein said element represents a single layer, a plurality of layers, or a plurality of laminated layers.

8. An electroluminescent device comprising a first electrode, an organic electroluminescent element, and a second electrode wherein said electroluminescent element includes a fluorescent 1,1'-binaphthyl derivative represented by Formula (II):

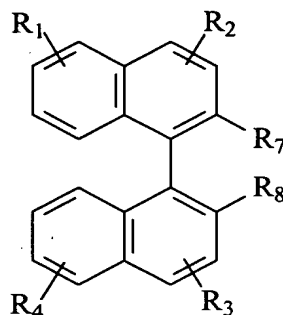


Formula (II)

wherein R₁, R₂, R₃ and R₄ are individual substituents or a group of substituents, each of which is selected from the group consisting of hydrogen; alkyl of from 1 to about 25 carbon atoms; an alicyclic alkyl of from 3 to 15 carbon atoms; an aryl or substituted aryl with about 6 to about 30 carbon atoms; carbon atoms from 4 to 24 necessary to complete a fused aromatic ring of naphthalene, anthracene, perylene and the like; an alicyclic alkyl group with from about 3 to about 15 carbon atoms; a silicon atom which can be substituted with a trimethyl, diphenylmethyl, triphenyl group and the like; heteroaryl or substituted heteroaryl of from 5 to 24 carbon atoms, carbon atoms necessary to complete a fused heteroaromatic ring of furyl, thienyl, pyridyl, quinolinyl and other heterocyclic systems; an alkoxy, amino, alkyl amino or aryl amino of from 1 to about 25 carbon atoms; a halogen, a cyano group, and the like; and combinations thereof; and R₅ and R₆ are substituents selected from the group consisting of an aryl or substituted aryl with about 6 to about 30 carbon atoms; heteroaryl or substituted heteroaryl of from 5 to 24 carbon atoms, carbon atoms necessary to complete a fused heteroaromatic ring of furyl, thienyl, pyridyl, quinolinyl and other heterocyclic systems; carbon atoms from 4 to 24 necessary to complete a fused aromatic ring of naphthalene, anthracene, perylene and the like; a silicon atom which can be substituted with a trimethyl, diphenylmethyl, triphenyl group and the like; and combinations thereof.

9. An electroluminescent device in accordance with claim 8 wherein said R₅ and R₆ are selected from the group consisting of phenyl, tolyl, naphthyl, anthryl, phenylanthryl, diphenylanthryl, biphenyl, phenylvinyl, diphenylvinyl, perylene, furyl, thienyl, pyridyl, trimethylsilyl and triphenylsilyl.

10. An electroluminescent device comprising a first electrode, an organic electroluminescent element, and a second electrode wherein said electroluminescent element includes a fluorescent 1,1'-binaphthyl derivative represented by Formula (III):

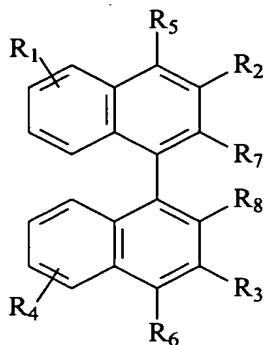


Formula (III)

wherein R_1 , R_2 , R_3 and R_4 are individual substituents or a group of substituents, each of which is selected from the group consisting of hydrogen; alkyl of from 1 to about 25 carbon atoms; an alicyclic alkyl of from 3 to 15 carbon atoms; an aryl or substituted aryl with about 6 to about 30 carbon atoms; carbon atoms from 4 to 24 necessary to complete a fused aromatic ring of naphthalene, anthracene, perylene and the like; an alicyclic alkyl group with from about 3 to about 15 carbon atoms; a silicon atom which can be substituted with a trimethyl, diphenylmethyl, triphenyl group and the like; heteroaryl or substituted heteroaryl of from 5 to 24 carbon atoms, carbon atoms necessary to complete a fused heteroaromatic ring of furyl, thienyl, pyridyl, quinolinyl and other heterocyclic systems; an alkoxy, amino, alkyl amino or aryl amino of from 1 to about 25 carbon atoms; a halogen, a cyano group, and the like; and combinations thereof; and R_7 and R_8 are substituents selected from the group consisting of alkyl of from 1 to about 25 carbon atoms; an alkoxy, amino, alkyl amino or aryl amino of from 1 to about 25 carbon atoms; a halogen, a cyano group, and the like; and combinations thereof.

11. An electroluminescent device in accordance with claim 10 wherein said R_7 and R_8 are selected from the group consisting of methyl, ethyl, methoxy, ethoxy, isopropoxy, butoxy, dimethylamino, diethylamino, fluorine, chlorine, bromine and cyano.

12. An electroluminescent device comprised of a first electrode, an organic electroluminescent element, and a second electrode wherein said electroluminescent element contains a fluorescent 1,1'-binaphthyl derivative represented by Formula (IV):



Formula (IV)

wherein R_1 , R_2 , R_3 and R_4 are individual substituents or a group of substituents, each of which is selected from the group consisting of hydrogen; alkyl of from 1 to about 25 carbon atoms; an alicyclic alkyl of from 3 to 15 carbon atoms; an aryl or substituted aryl with about 6 to about 30 carbon atoms; carbon atoms from 4 to 24 necessary to complete a fused aromatic ring of naphthalene, anthracene, perylene and the like; an alicyclic alkyl group with from about 3 to about 15 carbon atoms; a silicon atom which can be substituted with a trimethyl, diphenylmethyl, triphenyl group and the like; heteroaryl or substituted heteroaryl of from 5 to 24 carbon atoms, carbon atoms necessary to complete a fused heteroaromatic ring of furyl, thienyl, pyridyl, quinolinyl and other heterocyclic systems; an alkoxy, amino, alkyl amino or aryl amino of from 1 to about 25 carbon atoms; a halogen, a cyano group, and the like; and combinations thereof; and R_5 and R_6 are substituents selected from the group consisting of an aryl or substituted aryl with about 6 to about 30 carbon atoms; heteroaryl or substituted heteroaryl of from 5 to 24 carbon atoms, carbon atoms necessary to complete a fused heteroaromatic ring of furyl, thienyl, pyridyl, quinolinyl and other heterocyclic systems; carbon atoms from 4 to 24 necessary to complete a fused aromatic ring of naphthalene, anthracene, perylene and the like; a silicon atom which can be substituted with a trimethyl, diphenylmethyl, triphenyl group and the like; and combinations thereof; and R_7 and R_8 are substituents selected from the group consisting of alkyl of from 1 to about 25 carbon atoms; an alkoxy, amino, alkyl amino or aryl amino of from 1 to about 25 carbon atoms; a halogen, a cyano group, and the like; and combinations thereof.

13. An electroluminescent device comprised of a first electrode, an organic luminescent element, and a second electrode wherein said electroluminescent element contains a 1,1'-binaphthyl derivative selected from the group consisting of 4,4'-phenyl-1,1'-binaphthyl, 4,4'-(4-t-butylphenyl)-1,1'-binaphthyl, 4,4'-(2-naphthyl)-1,1'-binaphthyl, 4,4'-(1-naphthyl)-1,1'-binaphthyl, 4,4'-anthracene-1,1'-binaphthyl, 4,4'-triphenylsilyl-1,1'-binaphthyl, and 2,2'-methoxy-6,6-phenyl-1,1'-binaphthyl.

14. An organic electroluminescent device comprising in the following sequence an anode, an optional buffer layer, a hole transporting layer, a light emitting layer comprised of a 1,1'-binaphthyl derivative of Formula (I), an electron transport layer, and a cathode.

15. An electroluminescent device in accordance with claim 14 wherein said light emitting layer further comprises a fluorescent or phosphorescent dye.

16. An electroluminescent device in accordance with claim 14 wherein said anode is comprised of indium tin oxide in a thickness of from about 1 to about 500 nanometers; said buffer layer is comprised of a phthalocyanine derivative in a thickness of from about 5 to about 80 nanometers, said hole transport layer is comprised of a tertiary aromatic amine in a thickness of from about 5 to about 300 nanometers; said light emitting layer is of a thickness of about 5 to about 300 nanometers, and said cathode is comprised of a magnesium silver alloy or a lithium aluminum alloy in a thickness of from about 10 to about 800 nanometers.